HORNADY PARK POND

2004 Fish Management Report

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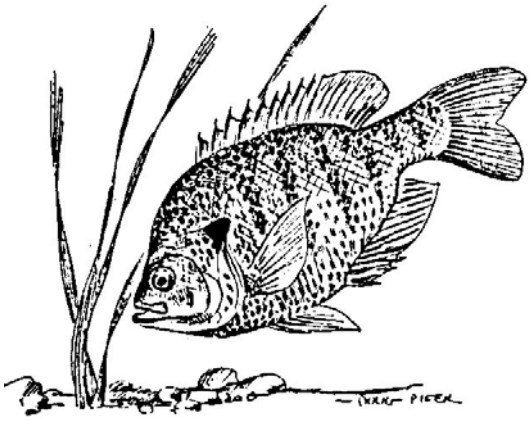

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INTRODUCTION

Hornady Park Pond is a 1.9 acre impoundment located on the northwest side of Petersburg. Hornady Park is under the control of the Pike County Park Board. The park has a picnic area, tennis courts, children's playground, and small amphitheater. The Pike County 4H fairgrounds and community building are also associated with the park. There is no boat ramp, but the entire shoreline is accessible to shore fishing.

Past fish management surveys were conducted in 1979, 1989, 1993, and 1999. The pond was drained to fix the dam in 1998, and once it filled a spot check survey was conducted to determine what fish survived. Channel catfish have been annually stocked since 1983. In 1998, 406 largemouth bass fingerlings, 1,754 bluegill fingerlings, and 633 redear sunfish fingerlings were stocked to redevelop the fishery. A 14 inch largemouth bass minimum length limit was imposed in 1991.

The 1999 fisheries survey documented an unbalanced fishery. Only four largemouth bass were sampled and bluegill, green sunfish, and black crappie dominated the collection by number. It was recommended that adult largemouth bass be stocked to bring the fishery back into balance. In July 1999, 128 largemouth bass were stocked that ranged in length from 7.8 to 14.8 inches.

The current survey was conducted on June 14 and 15, 2004 to monitor the 1999 stocking of adult largemouth bass and the effects that stocking had on the fishery. Fish collection effort consisted of 0.22 hour of pulsed D.C. night electrofishing and one trap net lift. Two dippers collected the stunned fish. Dissolved oxygen and temperature profiles, alkalinity, pH, conductivity, and turbidity data were measured according to standard survey guidelines. An aquatic vegetation survey was conducted on August 8.

RESULTS AND DISCUSSION

Water chemistry data were normal for a pond in southwest Indiana. Dissolved oxygen was sufficient for fish survival to a depth of 4 feet. Sago pondweed was the dominant plant sampled during the aquatic vegetation survey. It was found at 61% of the sample sites with a mean rake score of 2.38. Curlyleaf pondweed was also sampled in trace amounts. In previous years filamentous algae has been a nuisance plant that has covered the majority of the pond’s surface.

A total of 212 fish was collected in the survey. Bluegill were most abundant by number followed by largemouth bass, redear sunfish, and channel catfish. Largemouth bass were most

abundant by weight followed by bluegill, redear sunfish, and channel catfish. Other species sampled were bowfin, black crappie, and hybrid sunfish.

A total of 148 bluegill was sampled that weighed 6.33 pounds. They ranged in length from 1.7 to 7.5 inches. Bluegill accounted for 70% of the collection by number and 12% by weight. The electrofishing catch rate was 236 per hour and the trap net catch rate was 96 per lift. Bluegill growth was average for all ages when compared to the district averages. In 1999, due to the pond draining and subsequent restocking in 1998, only ages 1 and 2 bluegill were sampled. Population indices were not calculated due to the low number of stock size fish sampled.

Thirty-eight largemouth bass were sampled that weighed 35.34 pounds. They ranged in length from 9.8 to 19.7 inches. Largemouth bass accounted for 18% of the collection by number and 66% by weight. Sixteen percent of the bass sampled were at least 14 inches long. The electrofishing catch rate was 173 per hour which was an improvement from the 1999 catch rate of 20 per hour. Their growth was average for all ages. No age 1 bass were sampled. Population indices were not calculated due to the low number of stock size fish sampled.

Eighteen redear sunfish were sampled that weighed 5.73 pounds. They ranged in length from 6.3 to 8.4 inches. Redear accounted for 9% of the collection by number and 11% by weight. Catch rates were 77 per electrofishing hour and 1 per trap net lift. Their growth was above average for age 1, average for ages 2 through 4, at the low end of the average range for age 5, and below average for age 6.

Other species sampled were channel catfish, bowfin, black crappie, and hybrid sunfish. Collectively, these species combined for 4% of the sample by number and 11% by weight. The five channel catfish sampled ranged in length from 9.5 to 18.1 inches. The bowfin was probably stocked by an angler that was fishing the nearby White River. It is illegal to stock fish into public waters.

CONCLUSIONS AND RECOMMENDATIONS

Best fishing at Hornady Park Pond would be for largemouth bass, bluegill, and channel catfish. Bass up to nearly 20 inches were sampled with 16% being at least 14 inches. Bluegill up to 7.5 inches were sampled and they exhibited good growth. More larger bluegill are probably available earlier in the year before they get harvested. Channel catfish fishing should be good since the Division of Fish and Wildlife is stocking 200 channel catfish annually.

The fishery has undergone major positive changes since the 1999 adult largemouth bass stocking. Previous to the bass stocking, bluegill, black crappie, and green sunfish relative abundances by number were 55%, 28%, and 9%, while the largemouth bass relative abundance was less than 1%. Since the one time adult bass stocking, the fishery is more balanced with bluegill, largemouth bass, and redear sunfish relative abundances by number of

70%, 18%, and 9%. Also, black crappie abundance in 2004 was less than 1% and no green sunfish were sampled. The adult bass stocking has changed Hornady Park Pond's fishery from a stunted panfishery with few bass to a quality fishery for bass and bluegill. This type of quality fishery is not normally obtainable in a county park pond that receives heavy fishing pressure. To sustain the good fishing, the 14 inch largemouth bass size limit should be strictly enforced as the larger bass could easily be fished out due to the abundant access.

Adult largemouth bass stockings should be used more often for corrective management of small impoundments like Hornady Park Pond. Adult largemouth bass can be easily obtained from other lakes where bass densities are negatively impacting the fishery. Adult bass stockings are a cost effective management tool compared to fish toxicants, which usually require a lake drawdown.

This pond's fishery should be resurveyed in 2007 to monitor the bass population levels. It is possible that another adult bass stocking may be needed if bass harvest increases.

The annual channel catfish stockings should continue because this pond receives heavy fishing pressure.

Submitted by: Daniel P. Carnahan, Fisheries Biologist
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Approved by: _____
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